Curriculum Vitae

Nelson Kibinge, PhD

2026-10-20

Computational biologist and senior scientist in Translational Medicine at Orion Pharma, Finland. Supports oncology research across pre-clinical and clinical programmes, with recent focus on immuno-oncology bioinformatics, indication selection, and biomarker discovery using patient molecular data.

Contact: nelkibs@gmail.com · LinkedIn · Google Scholar · GitHub

Current focus and strengths

- Clinical-project support, including indication selection and translational decision-making through integration of disease biology with clinical and molecular evidence.
- Biomarker discovery and evaluation using patient DNA sequencing, circulating tumour DNA (ctDNA), and RNA sequencing data.
- Immuno-oncology bioinformatics: tumour–immune biology, immune-cell populations, tumour-infiltrating immune cells, and molecular signatures.
- Multi-omics integration across genomics, transcriptomics, proteomics, single-cell, and spatial data.
- R and Python tool development, reusable analytical workflows, and Shiny applications for research and development.
- AI-enabled approaches for oncology target discovery and prioritization, target-confidence assessment, and hypothesis generation.
- Cross-functional collaboration across translational, clinical, computational, and experimental teams; clear communication of analytical findings.

Professional experience

Senior Scientist – Computational Biologist | Orion Pharma

February 2020–Present · Turku, Finland

Works in Translational Medicine, supporting oncology research and development. Develops and applies computational approaches to high-throughput omics data, contributes to target prioritization and biomarker discovery, develops data-science tools, and supports data-driven bioinformatics and AI collaborations.

Senior Research Associate – Statistical Genomics | MRC Integrative Epidemiology Unit, University of Bristol

April 2019–January 2020 · Bristol, United Kingdom

Applied genomics and epidemiology methods to identify therapeutic targets for autoimmune diseases, communicated scientific findings, and facilitated academic–pharma collaboration.

Visiting Research Scientist | Heidelberg University

January–March 2019 · Heidelberg, Germany

Developed statistical methods for analysis of KILchip Protein Microarray data.

Senior Postdoctoral Scientist – Acting Head of Statistics | KEMRI-Wellcome Trust Research Programme

March 2018–June 2019 · Kilifi, Kenya

Led the statistics unit, supported institutional statistical needs, and developed statistical methods for diverse omics datasets.

Early Career Postdoctoral Scientist | KEMRI-Wellcome Trust Research Programme

March 2016–November 2018 · Kilifi, Kenya

Conducted research on malaria and virus genomics and diversity in long-term surveillance; published research; and supervised master's students and interns.

Adjunct Faculty | Pwani University

July 2016–Present · Kilifi, Kenya

Taught MSc Bioinformatics courses in biostatistics, data science for biology, databases, and data visualization; examines master's and doctoral theses in bioinformatics.

Bioinformatics Intern | Yukiguni Maitake

March–September 2015 · Niigata, Japan

Developed transcriptomics and genomics software tools supporting research and development in Maitake mushroom cultivation.

Medical Sales Representative | Pharmaken Kenya Ltd.

2008–2009 · Kenya

Marketed generic anti-inflammatory and analgesic products in Nairobi and the North Eastern region.

Education

PhD, Computational Biology | Nara Institute of Science and Technology

2013–2015 · Thesis: *Integrated pathway-based transcription regulation network mining to decipher the role of transcription factors in the heterogeneity of small cell lung cancer phenotypes.*

MSc, Computational Biology | Nara Institute of Science and Technology

2011–2013 · Thesis: *Protein sequence diversity characterization using the physical attributes of amino acids: Examples in Plasmodium falciparum sequences and terpenoid enzymes.*

Intensive Japanese Language Course | Osaka University

2010–2011

BSc, Biology | University of Nairobi

2004–2008

Secondary Education | St Patrick's High School, Iten

1999–2002

Selected publications and conference abstracts

- Narvi, E., Virtakoivu, R., Elbasani, E., **Kibinge, N.**, Ravanti, L., and Thotakura, A. K. (2025). "Abstract 914: Differential expression of Cbl-b in tumor infiltrating immune cells in patients with solid tumors." *Cancer Research*, 85(8 Supplement 1), 914. AACR Annual Meeting. Abstract · DOI
- Kibinge, N., Dickens, A., Genge, A., Maragakis, N., Petri, S., Van den Berg, L., et al. (2021). "Correlation of laboratory safety variables with disease course in the REFALS phase 3 study of levosimendan in people with ALS (4125)." *Neurology*, 96(15 supplement), 4125. Abstract
- Kibinge, N. K., Relton, C. L., Gaunt, T. R., and Richardson, T. G. (2020). "Characterizing the causal pathway for genetic variants associated with neurological phenotypes using human brain-derived proteome data." *The American Journal of Human Genetics*, 106(6), 885–892. Article
- Kibinge, N., Ono, N., Horie, M., Sato, T., Sugiura, T., Altaf-Ul-Amin, M., et al. (2016). "Integrated pathway-based transcription regulation network mining and visualization based on gene expression profiles." *Journal of Biomedical Informatics*, 61, 194–202. Google Scholar

Awards

- **2025 — Orion Innovation Award:** Development of an in-house oncology single-cell explorer platform, deployed in production for target discovery and ideation.
- **2010 — Monbukagakusho (MEXT) Scholarship:** Awarded to pursue master's and doctoral studies in bioinformatics.
- **2008 — Gandhi Smarak Nidhi Fund Prize:** Top graduate student, School of Biological Sciences, University of Nairobi, Class of 2008.